

## CLAIMS

We claim:

- 5                   1.    A method of treating a human or animal  
                  having undesirable cell proliferation comprising,  
                  administering to the human or animal a sufficient  
                  amount of a composition comprising tissue factor pathway  
                  inhibitor to inhibit the undesirable cell proliferation.
- 10                   2.    The method of Claim 1 wherein the  
                  undesirable cell proliferation is undesirable endothelial cell  
                  proliferation.
- 15                   3.    The method of Claim 1 wherein the  
                  undesirable cell proliferation is an angiogenesis-related  
                  disease.
- 20                   4.    The method of Claim 3, wherein the  
                  angiogenic-related disease is a disease selected from the group  
                  consisting of cancer, arthritis, macular degeneration, and  
                  diabetic retinopathy.
- 25                   5.    The method of Claim 1 wherein  
                  administration of the composition inhibits angiogenesis.
- 30                   6.    The method of Claim 1 wherein the tissue  
                  factor pathway inhibitor is a protein or peptide having the  
                  amino acid sequence set forth in SEQ ID NO. 1, a homolog  
                  thereof, or an anti-proliferative fragment thereof.
- 35                   7.    The method of Claim 6 wherein the  
                  homolog is a protein or peptide having the amino acid  
                  sequence set forth in SEQ ID NO. 2 or an anti-proliferative  
                  fragment thereof.

8. The method of Claim 6 wherein the anti-proliferative fragment contains the Kunitz-3 domain or a fragment thereof.

5

9. The method of Claim 7 wherein the anti-proliferative fragment contains the Kunitz-3 domain or a fragment thereof.

10

10. The method of Claim 1 wherein the composition comprises tissue factor pathway inhibitor and a pharmaceutically acceptable excipient, carrier or sustained-release matrix.

15

11. A composition for inhibiting cell proliferation comprising tissue factor pathway inhibitor in a pharmaceutically acceptable carrier.

20

12. The composition of Claim 11, wherein the tissue factor pathway inhibitor comprises an active fragment of tissue factor pathway inhibitor, wherein the active fragment inhibits cell proliferation.

25

13. The composition of Claim 12 wherein the active fragment inhibits endothelial cell proliferation.

30

14. The composition of Claim 12 wherein the active fragment inhibits angiogenesis.

15. The composition of Claim 12 wherein the active fragment inhibits angiogenesis-related disease.

16. The composition of Claim 15, wherein the angiogenic-related disease is a disease selected from the group consisting of cancer, arthritis, macular degeneration, and diabetic retinopathy.

5

17. The composition of Claim 12 wherein the active fragment is a peptide having an amino acid sequence within the amino acid sequence set forth in SEQ ID NO. 1.

10

18. The composition of Claim 12 wherein the active fragment is a peptide having an amino acid sequence within the amino acid sequence set forth in SEQ ID NO. 2.

15

19. The composition of Claim 11 wherein the active fragment contains the Kunitz-3 domain or a fragment thereof.

20

20. The composition of Claim 10, wherein the carrier is a sustained-release matrix.